IN THE CLAIMS

1. (Previously presented) A method of providing frequency correction for a spread spectrum communication receiver, comprising:

receiving a first signal having a first data rate;

determining, based at least on the first signal, a second signal having a second data rate, wherein the second data rate is lower than the first data rate;

determining, based at least on the second signal, a third signal having a third data rate, wherein the third data rate is lower than the second data rate;

determining a frequency offset by processing samples of said third signal;

generating a correction sequence from said determined frequency offset; and

combining said second signal having said second data rate with said correction sequence obtained from said third signal having said third data rate to correct the determined frequency offset.

D1 cont

2. (Original) The method of claim 1 further comprising the step of filtering the determined frequency offset prior to the generation of a correction sequence therefrom to reduce noise therein.

3. (Original) The method of claim 1 wherein said step of determining a frequency offset includes the performance of a data processing operation comprising the calculation of the mathematical argument of a complex sample multiplied by the complex conjugate of a preceding complex sample.

4. (Previously presented) The method of claim 1 wherein the communication system is a code division multiple access communication system and wherein the frequency offset is determined from consecutive symbol samples and the frequency offset is corrected by multiplying received data by a correction factor.

5. (Previously presented) The method of claim 1 wherein said correction sequence is an up-sampled complex correction sequence $Z_{offs}(k)$, where k represents a given sampling instant, where $Z_{offs}(k)$ is equal to 1 x exp $\{j\varphi_{offs}(k)\}$ where $\varphi_{offs}(k)$ represents phase offset values at the first rate which are linearly interpolated from an average phase difference at the third data rate.

D1 cont

6. (Previously presented) A spread spectrum communication system comprising a plurality of receivers for receiving transmitted signals, wherein each receiver comprises:

an RF signal receiver for generating an analog signal from a received RF signal;

an analog to digital converter for converting said analog signal into a digital signal, the digital signal having a first data rate;

a downconverter for downconverting the digital signal to a second signal having a second data rate, wherein the second data rate is lower than the first data rate;

a digital signal despreader for processing the second signal having the second data rate to obtain a despread digital signal having a third data rate, said third data rate being lower than said second data rate; and

a frequency corrector,

wherein said frequency corrector comprises a feedback loop including a frequency offset detector for obtaining a measure of a frequency offset from said despread digital signal and a frequency correction generator for generating a frequency correction and a combiner for combining said frequency correction with said second signal to correct said frequency offset.

7. (Original) A spread spectrum communication system according to claim 6 wherein said feedback loop includes a filter for filtering said measure of said frequency offset to reduce noise therein.

D1 cont

8. (Previously presented) A spread spectrum communication system according to claim 6 wherein said frequency offset detector is adapted to perform a mathematical operation of determining the mathematical argument of a complex sample of said despread digital signal multiplied by the complex conjugate of an immediately preceding sample of said despread digital signal.

9. (Previously presented) A spread spectrum communication system according to claim 6 wherein said frequency corrector includes a multiplier for multiplying said second signal by a correction factor prior to despreading said code-spread signal.

10. (Previously presented) A spread spectrum communication system according to claim 6 wherein said frequency correction generator comprises an interpolator for calculating

phase offset values for said second digital signal from an average phase difference calculated from samples of said despread signal.

11. (Original) A spread spectrum communication system according to claim 6 wherein said communication system is a code division multiple access system.

12. (Original) A spread spectrum communication system according to claim 6 wherein said communication system is a wireless local loop link.

13. (Previously presented) A receiver for a spread spectrum communication system comprising:

D1 cont

an analog to digital converter for converting an analog signal into a digital signal;

a downconverter for downconverting the digital signal to a second signal having a second data rate, wherein the second data rate is lower than the first data rate;

a digital signal despreader for processing the second signal having the second data rate to obtain a despread digital signal having a third data rate, said third data rate being lower than said second data rate; and

a frequency corrector,

wherein said frequency corrector comprises a feedback loop including a frequency offset detector for obtaining a measure of a frequency offset from said despread digital signal and a frequency correction generator for generating a frequency correction and a combiner for combining said frequency correction with said second signal to correct said frequency offset.

14. Cancelled.

15. (Previously presented) The receiver of claim 13, further comprising a timing circuitry communicatively coupled between the analog to digital converter and the down-converter to perform a timing correction function.

16. Cancelled.

17. (Previously presented) The system of claim 6, further comprising a timing circuitry communicatively coupled between the analog to digital converter and the down-converter to perform a timing correction function.

D1 cont

18. Cancelled.

19. (Previously presented) The system of claim 6, wherein said frequency correction is an up-sampled complex correction sequence $Z_{offs}(k)$, where k represents a given sampling instant, and where $Z_{offs}(k)$ is equal to 1 x exp $\{j\varphi_{offs}(k)\}$ where $\varphi_{offs}(k)$ represents phase offset values at the first rate which are linearly interpolated from an average phase difference at the third rate.

20. (Previously presented) The receiver of claim 13, wherein said frequency correction is an up-sampled complex correction sequence $Z_{offs}(k)$, where k represents a given

D1 cont'd

sampling instant, and where $Z_{offs}(k)$ is equal to 1 x exp $\{j\varphi_{offs}(k)\}$ where $\varphi_{offs}(k)$ represents phase offset values at the first rate which are linearly interpolated from an average phase difference at the third rate.